UNITED NATIONS

ST

Secretariat

Distr.
GENERAL

PROVISIONAL
ST/ESA/STAT/SER.F/2/Rev.4 (Chapter XII)
9 July 1992
ENGLISH
ORIGINAL: ENGLISH/FRENCH/SPANISH

REVISED SYSTEM OF NATIONAL ACCOUNTS

CHAPTER XII

OTHER CHANGES IN ASSETS ACCOUNTS

Prepared under the auspices of
the Inter-Secretariat Working Group on National Accounts:

EUROSTAT
INTERNATIONAL MONETARY FUND
ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
UNITED NATIONS STATISTICAL DIVISION AND REGIONAL COMMISSIONS
WORLD BANK

92-31080

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XII. OTHER CHANGES IN ASSETS ACCOUNTS

List of Acronyms

OTHER CHANGES IN THE VOLUME OF ASSETS ACCOUNT

IMF . . . . . International Monetary Fund
SDR . . . . . special drawing right

THE REVALUATION ACCOUNT

CPI . . . . . consumer price index

XII. OTHER CHANGES IN ASSETS ACCOUNTS

GENERAL INTRODUCTION

1. This chapter is concerned with the recording of changes in assets, liabilities, and net worth between opening and closing balance sheets that result from other flows - that is, flows that are not transactions, the transactions being recorded in the Capital Account and Financial Account of the System.

2. Although the entries in the Other Changes in Assets Accounts do share the characteristic that they record changes that are not the result of transactions, the entries cover very different kinds of changes in assets, liabilities, and net worth. The first kind consists of changes that are due to factors such as discoveries or depletion of subsoil resources, destruction by war or other political events or destruction by natural catastrophes, all of which actually change the volume of assets. The second kind consists of changes in assets, liabilities, and net worth due to changes in the level and structure of prices, which are reflected in holding gains and losses. Thus, the Other Changes in Assets Accounts are subdivided into the Other Changes in the Volume of Assets Account and the Revaluation Account.

3. The chapter discusses the two accounts separately, beginning in each case with an introduction that explains the structure of the account.

THE OTHER CHANGES IN THE VOLUME OF ASSETS ACCOUNT

A. Introduction

4. As just stated, the Other Changes in the Volume of Assets Account records the changes in assets, liabilities, and net worth between opening and closing balance sheets that are due neither to transactions between institutional units, as recorded in the Capital and Financial Accounts, nor to holding gains and losses. The structure of the Other Changes in the Volume of Assets Account, shown in table XII.1, is similar to that of the other accumulation accounts. The entries for changes in assets are on the left, where non-financial assets, both produced and non-produced, and financial assets are all shown separately. The entries for changes in liabilities and the balancing item, change in net worth due to other changes in volume of assets, are on the right. The balancing item in the account is the sum of the entries for the various categories of changes recorded in the account.

1. Functions of the Other Changes in the Volume of Assets Account

5. In the Capital Account, fixed assets enter and leave the System through the acquisition less disposal of fixed assets and consumption of fixed capital, and inventories enter and leave the System through additions, withdrawals and current losses. In the Financial Account, most financial assets - claims on other institutional units - enter the System when the debtor acquires something of value and accepts the obligation to make payment, or payments, to the creditor, and they are extinguished when the debtor has fulfilled the obligation under the terms of the agreement. Both the Capital and Financial Accounts also record transactions in existing assets among the sectors, but, aside from associated costs of ownership transfer on assets, these acquisitions and disposals merely change the ownership of the assets without changing the total for the economy as a whole except where the transactions are between residents and the rest of the world. Therefore, one important function of the Other Changes in the Volume of Assets Account is to allow certain assets to enter and leave the System in the course of normal events. These entrances and exists may relate to naturally occurring assets, such as subsoil assets. Such entrances and exists come about as interactions between institutional units and nature, thus contrasting with entrances and exists that come about as a result of transactions, which typically are interactions by mutual agreement between institutional units. These entrances and exists may also relate to assets created by human activity, such as valuables and purchased goodwill.

6. A second function of the account is to record the effects of exceptional, unanticipated events that affect the economic benefits derivable from assets (and corresponding liabilities). These events include one institutional unit's effectively removing an asset from its owner without the owner's agreement, an action that is not considered a transaction because the element of mutual agreement is absent. These events also include those that

destroy assets, such as natural disaster or war, or affect the consumption of fixed capital. In contrast, transactions, such as consumption of fixed capital or change in inventories, refer to normal rates of loss or destruction.

7. A third function of the account is to record changes that reflect nothing more than changes in classifications of institutional units and assets and in the structure of institutional units.

8. It may be noted that The Other Changes in the Volume of Assets Account provides a link to the emerging environmental satellite accounts. All of the tangible non-produced assets are natural assets, and recording their economic appearance and disappearance is accomplished here. Moreover, this account provides a place for recording environmental degradation to fixed assets that is not allowed for in consumption of fixed capital. These features of the System that facilitate its use as a starting point for environmental accounting are discussed in <chapter XXI, Satellite Analysis and Accounts>.

2. Categories of changes in assets/liabilities and their valuation

9. In fulfilling these functions, the Other Changes in the Volume of Assets Account shows changes in assets/liabilities in nine categories:

- Economic appearance of non-produced assets,
- Economic appearance of produced assets,
- Natural growth of non-cultivated biological resources,
- Economic disappearance of non-produced assets,
- Catastrophic losses,
- Uncompensated seizures,
- Other volume changes in non-financial assets n.e.c.,
- Other volume changes in financial assets and liabilities n.e.c., and
- Changes in classifications and structure.

10. Most of these entries are specific to produced assets, to non-produced assets, or to financial assets/liabilities, as table XII.1 indicates. (For convenience, the term "financial asset" may be used to cover both financial assets and liabilities, except when the context requires liabilities to be referred to explicitly.) The others - catastrophic losses, uncompensated seizures and changes in classifications and structure - may, at least in concept, apply to any asset. The annex to <chapter XIII, Balance Sheet> may be referenced to see, at the level of detail of the classification of assets and liabilities, all possible entries provided by the System.

11. The entries in the Other Changes in the Volume of Assets Account are closely linked to entries in the other accumulation accounts. Several of the entries are associated with transactions in the Capital Account, and a number of others reflect changes in assets already on the Balance Sheet. The application of the general principle of valuation applied to transactions - at

the prices observed on the market - is discussed in various sections of <chapter X, Capital Account>; the general principle of valuation applied to stocks - valued as if they were being acquired on the market on the date to which the Balance Sheet relates - is discussed in <<chapter XIII, Balance Sheets, paragraphs >>. That chapter discusses the use of observed market prices, the present, or discounted, value of expected future benefits, and current written down values. Some generalizations about the relevance of these principles to the categories of flows in the account are indicated below.

Economic appearance - that is, when something is deemed to move inside the asset boundary to appear on the Balance Sheet - in some cases is associated with a transaction on the market, and that transaction can be used to estimate a value. This situation occurs, for example, for purchased goodwill, valuables and historic monuments. In a number of other cases, the appearance will probably have to be valued, as will the asset in the Balance Sheet, at the present, or discounted, value of the stream of expected future benefits from the asset. This approach must be used, for example, for economic appearance of subsoil assets and of intangible non-produced non-financial assets other than purchased goodwill.

Economic disappearance of non-produced assets, catastrophic losses and uncompensated seizures refer to the effects of exceptional, unanticipated events on assets already within the asset boundary. Thus, the valuation of the entry in the Other Changes in the Volume of Assets would be the amount recorded for the asset in the last Balance Sheet (updated as needed for price changes) if the disappearance was total or some percentage of it if less than total.

12. Each of the categories of the account will be explained below. The subheadings included in the text are for convenience only; they are not subheadings of the classification. The definition of the assets and liabilities are provided only to the extent needed to provide the context for discussing the volume change; for definitions at the level of detail of the classification, reference can be made to the annex to <chapter XIII, Balance Sheet>. Valuation is mentioned when category-specific guidance is appropriate. When a category's valuation is clearly tied to a transaction or to an entry in the Balance Sheet, reference should be made to the appropriate section in the other chapters.

B. Economic Appearance of Non-Produced Assets

13. By definition, non-financial non-produced assets are not created by processes of production. Thus, they are not among the assets that result from gross capital formation, as recorded in the Capital Account. Some of these assets occur in nature, and others come into existence in ways other than through processes of production as what may be referred to as constructs devised by society. The cases below represent the additions to the volume of

these kinds of assets. The term "appearance" is used to contrast with additions that are the result of processes of production as defined in the System.

1. Gross additions to the level of exploitable subsoil resources

14. In the System, subsoil assets are defined as those proven subsoil reserves of coal, oil and natural gas, of metallic minerals or of non-metallic minerals that are economically exploitable, given current technology and relative prices. The Capital Account records acquisitions and disposals among sectors of the reserves that exist under those conditions. The Other Changes in the Volume of Assets Account, in contrast, records increases and decreases that change the total volume for the economy as a whole.

15. One way in which the reserves may increase is by the discovery of new exploitable deposits, whether as a result of systematic scientific explorations or surveys or by chance. The definition of subsoil assets points to the other way in which economic appearance may occur - by change of the conditions. That is, reserves may be increased by the inclusion of deposits for which exploitation may have been previously uneconomic but becomes economic as a result of technological progress or relative price changes.

2. Transfers of other natural assets to economic activity

16. The definition of subsoil assets just referred to follows from application of the guidelines for identifying economic assets in the System. As explained in the General Introduction to the Accumulation Accounts and Balance Sheets in <chapter X, Capital Account>, economic assets are entities over which ownership rights are enforced by institutional units and from which economic benefits may be derived by their owners. Naturally occurring entities that qualify as economic assets are those that are under the direct control, responsibility and management of institutional units <<see especially paragraphs 10-12>>. Economic appearance is the move to this status.

17. Not all land included in the geographic surface area of a country is necessarily within the System's asset boundary. Land makes its appearance in the System, therefore, when it is transferred from a wild or waste state to one in which ownership may be established and the land can be put to economic use. In addition, the stock of land may be marginally increased by reclaiming land from the sea by the construction of dykes, as described in <chapter X, Capital Account>. Increases in the stock of land of this kind are recorded in the Other Changes in the Volume of Assets Account.

18. For other natural assets, the first substantial market appearance, generally involving commercial exploitation, is the reference point for recording in this account. For virgin forests, gathering firewood is not commercial exploitation, but large-scale harvesting of virgin forest for lumber is and brings the forest into the asset boundary. Similarly, drawing

water from a natural spring does not bring an aquifer into the asset boundary of the System, but a significant diversion of groundwater does.

3. Quality changes in non-produced assets due to changes in economic uses

19. The System, in general, treats differences in quality as differences in volume. As explained with respect to goods and services in <chapter XVI, Constant Prices>, different qualities reflect different use values (and in the case of goods and services, different resource costs). Different qualities are, therefore, economically different from each other. The same principle applies to assets. The quality changes recorded here occur as the counterpart of the changes in economic use that are shown as changes in classification, as described below - for example, from cultivated land to land underlying buildings. In this case, the asset is already within the asset boundary, and it is the change in quality of the asset due to changes in its economic use that is regarded as the appearance of additional amounts of the asset.

4. Appearance of intangible non-produced assets

20. Non-financial intangible non-produced assets are constructs devised by society evidenced by legal or accounting actions. They make their appearance in the System when entities are patented, transferable contracts are written, or enterprises are sold at prices that exceed the net worth of the enterprise in question, etc. The patenting consists of the entity being granted legal protection by law or judicial decision. The writing of transferable contracts consists of the coming into force of a binding agreement that provides some economic benefit that can be passed on to a third party independently of the provider of that benefit.

21. Goodwill that is not evidenced by a sale/purchase is not considered an economic asset: the only way that goodwill, the excess of the purchase price of an enterprise over its net worth (derived from its separately identified and valued assets and liabilities), enters the System is for such a purchase to occur. Conceptually, the necessary entries are as follows. The excess of the purchase price of an enterprise over its net worth enters the balance sheet of the seller, prior to the sale, as an economic appearance of a non-produced asset so that the enterprise can be sold at its purchase price; the excess is then taken off the seller's balance sheet as an economic disappearance of non-produced assets (a category described below). Simultaneously, the purchased good will enters the balance sheet of the purchaser as an economic appearance.

C. Economic Appearance of Produced Assets

22. The produced assets whose appearance is recorded in the Other Changes in the Volume of Assets Account are valuables and historic monuments, the latter included with dwellings and with other buildings and structures in the classification of assets. As was described in <chapter X, Capital Account>, they are objects, structures or sites of significant or special value. The Capital Account records the acquisition of valuables and historic monuments as newly produced goods or as imports, and it records transactions in existing goods already classified as valuables and historical monuments. It is the recognition of a significant or special value by a transaction in the case of goods that are not already recorded in the Balance Sheets that is considered as economic appearance to be recorded in the Other Changes in the Volume of Assets Account. These valuables and historic monuments have not already been recorded in the Balance Sheets for any of several reasons: they antedate the accounts, they were originally recorded as consumption goods, or if structures, they have already been written off.

23. For valuables, such as precious stones, antiques and other art objects, when the high value or artistic significance of an object not already recorded in the balance sheet is first recognized, it is classified as an economic appearance. Hitherto, the object may have been of little value and not considered an asset. For example, a piece of jewellery might have been considered an ordinary good whose purchase would be included in household final consumption expenditure were it not to make its appearance as a valuable because it was made of precious metals or stones. Such an appearance would be recorded for the valuable even though it is immediately the subject of a transaction recorded in the Capital Account.

24. For historic monuments, when the special archaeological, historical, or cultural significance of a structure or site not already recorded in the balance sheet is first recognized, it is classified as an economic appearance. For example, such recognition might be accorded an existing structure or site that is fully written off and thus no longer recorded in the Balance Sheet. Such recognition would also refer to quality changes in structures and sites that are already within the asset boundary because they are new or only partially written off; the counterpart entry in changes in classification may not be observable, however, at the level of detail in the classification of assets. The structure or site is immediately the subject of a transaction recorded in the Capital Account.

D. Natural Growth of Non-Cultivated Biological Resources

25. The natural growth of non-cultivated biological resources - natural forests, fishstocks, etc. - may take various forms: a stand of natural timber may grow taller, or fish in the estuaries may become more numerous. Growth of this kind is not under the direct control, responsibility and management of an institutional unit and thus is not production. The increment in the asset must then be regarded as an economic appearance, and it is recorded in the

Other Changes in the Volume of Assets Account.

26. In principle, natural growth should be recorded gross, and the depletion of these resources should be recorded an economic disappearance, as described below. This recording would be consistent with the separate recording of acquisitions and disposals described, for example, in the Capital Account. In practice, however, many countries will record natural growth net because the physical measures that are likely to be the only basis available for the recording are, in effect, net measures. These may be used in conjunction with a market price for a unit of the asset.

E. Economic Disappearance of Non-Produced Assets

27. The Capital and Financial Accounts provide three ways in which an asset can leave the System: through consumption of fixed capital, through withdrawals and current losses of inventories, and through extinguishing financial claims under the terms of the contractual agreements that created them. None of these apply to non-financial non-produced assets. The Other Changes in the Volume of Assets records the disappearance of the assets in other ways.

1. Depletion of natural economic assets

28. The depletion of natural deposits covers the reduction in the value of deposits of sub-soil assets as a result of the physical removal and using up of the assets.

29. In principle, the depletion of natural forests, ocean fishstocks and other non-cultivated biological assets included in the asset boundary as a result of harvesting, forest clearance, or other use should be included here, as should the depletion of water resources.

2. Other economic disappearance of non-produced assets

a. Other reductions in the level of exploitable subsoil resources

30. The changes recorded here are the negative counterparts of gross additions to the level of exploitable subsoil resources that result from reassessments of exploitability because of changes in technology or relative prices. In practice, only net additions may be available, and these will be recorded under economic appearance of non-produced assets.

b. Quality change in non-produced assets due to changes in economic uses

31. The changes recorded here are, for example, decreases in the value of land that are the counterpart of the changes in land use - for example, from cultivated land to communal grazing land - recorded as changes in classification, as described below. This is symmetrical with the quality changes recorded under economic appearance of non-produced assets, as described above.

c. Degradation of non-produced assets due to economic activity

32. All degradation of land, water resources and other natural assets from economic activity is recorded in the Other Changes in the Volume of Assets Account. The degradation may be either ordinary, recurring - and, therefore, anticipated - deterioration resulting from economic activity or less predictable erosion and other damage to land from deforestation or improper agricultural practices, the harmful effects on fishstocks of acid rain or excess nutrients from agricultural run-off, etc.

d. Write-off and cancellation of purchased goodwill, transferable contracts, etc., and exhaustion of patent protection

33. Just as the appearance of intangible non-produced assets is recorded in the Other Change in the Volume of Assets Account, so is their write-off, termination, or exhaustion. For purchased goodwill, amortization should be recorded over a period of time after the purchase of an enterprise, following country accounting standards; the exhaustion of patent protection should be recorded over the duration of the patent.

F. Catastrophic Losses

34. Consumption of fixed capital, recorded in the Capital Account, is intended to cover normal accidental damage to the various categories of fixed assets, including cultivated assets. Elsewhere in the Other Changes in the Volume of Assets Account, depletion of non-produced natural assets covers normal rates of extraction, harvesting, etc., and degradation of non-produced assets covers damage due to economic activity. The volume changes recorded as catastrophic losses, however, are the result of large scale, discrete, and recognizable events that may destroy assets over the whole spectrum.

35. Such events will generally be easy to identify. They include earthquakes, hurricanes, drought and other natural disasters; acts of war, riots and other political events; and technological accidents such as major toxic spills or release of radioactive particles into the air.

36. Included here are such major losses as deterioration in the quality of

land caused by abnormal flooding or wind damage; destruction of cultivated assets by drought or outbreaks of disease; destruction of buildings, equipment or valuables in forest fires or earthquakes; and the accidental destruction of currency or bearer securities as a result of natural catastrophe or political events.

G. Uncompensated Seizures

37. Governments or other institutional units may take possession of the assets of other institutional units, including non-resident units, without full compensation for reasons other than the payment of taxes, fines, or similar levies. The seizures of assets by governments or other institutional units may contravene national, or international, law. Such seizures are not capital transfers recorded in the Capital Account.

38. If the compensation falls substantially short of the market or related values of the assets as shown in the Balance Sheet, the difference should be recorded in the entry for uncompensated seizures of assets, as an increase in assets for the institutional unit doing the seizing and a decrease in assets for the institutional unit losing the asset.

39. It should be noted that foreclosures and repossessions of goods by creditors are not treated as uncompensated seizures. They are treated as transactions - disposals by debtors and acquisitions by creditors - because, explicitly or by general understanding, the agreement between debtor and creditor provided this avenue of recourse.

H. Other Volume Changes in Non-Financial Assets n.e.c.

40. The Other Changes in the Volume of Assets Account also systematically records the effects of unexpected events on the economic benefits derivable from assets, especially the effect of events not anticipated when allowances were specified for the consumption of fixed capital - which reflects normal rates of physical deterioration, obsolescence and accidental damage - or for normal rates of inventory shrinkage. These include untimely retirements of fixed assets because of unforseen obsolescence, fragility, etc., and exceptional losses in inventories. In practice it may be difficult to distinguish among the categories shown below.

1. Unforseen obsolescence

41. Consumption of fixed capital does not cover unforeseen obsolescence in these assets, and the amount included for their normally expected obsolescence may fall short of the actual obsolescence. Entries must, therefore, be made in the Other Changes in the Volume of Assets Account for the decline in the value of the fixed assets - whether a complete or partial write-off - resulting from the introduction of improved technology. The improvement may

take the form of improved models of the asset or of a new production process that no longer requires the asset.

2. Differences between allowances included in consumption of fixed capital for normal damage and actual losses

42. Consumption of fixed capital does not cover unforeseen damage, and the amount included for their normally expected damage may fall short of (or exceed) the actual damage. For the economy as a whole, this difference should normally be small; for individual units this difference is normally significant and may fluctuate in sign. Adjustments must therefore be made in the Other Changes in the Volume of Assets Account for the decline (or increase) in the value of the fixed assets due to these events. These losses are larger than normal, but are not on a scale sufficiently large to be considered catastrophic.

3. Degradation of fixed assets not accounted for in consumption of fixed capital

43. Consumption of fixed capital does not cover unforeseen environmental degradation in these assets. Entries must, therefore, be made in the Other Changes in the Volume of Assets Account for the decline in the value of the fixed assets from, for example, the effects of acidity in air and rain on building surfaces or vehicle bodies.

4. Abandonment of production facilities before completion or being brought into economic use

44. Production facilities with long construction periods may cease to have an economic rationale before they are complete or are put into service. For example, some nuclear power plants and industrial sites, especially in formerly centrally planned economies or developing countries, may never be put into service. When the decision to abandon is made, the value of the fixed asset (or in some case, work in progress inventories, as explained in <chapter X, Capital Account>) as recorded in the Balance Sheet should be written off in the Other Change in the Volume of Assets Account.

5. Exceptional losses in inventories

45. Exceptional losses from fire damage, from robberies, from insect infestation of grain stores, etc., should be recorded here. In this context, exceptional losses tend to be less regular and larger in value than current losses mentioned in the descriptions of inventory change in <chapter X, The Capital Account>.

6. Other volume changes in non-financial assets, n.e.c.

46. Any changes in non-financial assets that are not transactions in the Capital Account, that should not be attributed to holding gains or losses, and that do not fall into one of the categories already enumerated above are to be recorded here. For example, assets may last longer than expected either economically or physically. An entry in the Other Changes in the Volume of Assets Account permits the restoration to the System of an asset that has been fully written off but is still productive because its anticipated replacement never materialized or because it was much more durable than anticipated.

47. Entries should also be made for the write-off of costs of ownership transfer on fixed assets in certain situations. These costs are treated as gross fixed capital formation, and are gradually written off as part of the consumption of fixed capital charged on the use of the asset over its service life. When an existing fixed asset is sold by one resident institutional unit to another, it is necessary to record in the accounts of the seller a negative volume change equal to the sum of (1) selling costs and (2) that part of original acquisition costs incurred by the seller that has not already been written off as consumption of fixed capital. Further, costs of ownership transfer on non-produced assets, such as land, are included in gross fixed capital formation, and consumption of fixed capital is to be charged using suitably long service lives. If such an asset is sold, any acquisition costs previously incurred by the seller that have not already been written off, together with the selling costs, must be written off in the Other Changes in the Volume of Assets Account to arrive at a zero figure for land in the seller's balance sheet. (See <<chapter X, Capital Account, paragraphs 64-65>>.)

I. Other Volume Changes in Financial Assets and Liabilities n.e.c.

48. Most financial assets - claims on other institutional units - are created when the debtor accepts the obligation to make a payment, or payments, to the creditor in the future; they are extinguished when the debtor has fulfilled the obligation under the terms of the agreement. Those assets for which not even a notional liability exists, however, cannot be created and extinguished in this way; hence, they enter and leave the System through the Other Changes in the Volume of Assets Account. Also recorded here are the effects of events not anticipated when the terms of financial claims were set.

1. Allocations and cancellations of SDRs

49. Special Drawing Rights (SDRs) are international reserve assets created by the International Monetary Fund (IMF) and allocated to its members to supplement existing reserve assets. As explained in <<paragraph 67 of chapter XI, The Financial Account>>, Transactions in SDRs are recorded in the Financial Accounts of the monetary authorities and the rest of the world, respectively. However, a new allocation of SDRs by the IMF is recorded in the

Other Changes in the Volume of Assets Account, as is the cancellation of SDRs by the IMF. The first increases assets for the monetary authorities, the second decreases their assets. There is no IMF liability for these assets. The flows can be valued by reference to the value of SDRs as determined daily by the IMF on the basis of a basket of currencies.

2. Writing off bad debts by creditors

50. Recognition by a creditor that a financial claim can no longer be collected, due to bankruptcy or other factors, and the consequent removal of that claim from the balance sheet of the creditor should be accounted for here, along with removal of the liability of the debtor. Cancellation of debt by mutual agreement between debtor and creditor is not included here; it is treated as a capital transfer from the creditor to the debtor in the Capital Account with a simultaneous extinction of a claim in the Financial Account, as explained in <<paragraph 23 of chapter XI, The Financial Account>>.

3. Counterpart of "other accounts receivable/payable" for defined benefit pension funds

51. Defined benefit pension plans are those in which the level of pension benefits promised to participating employees is guaranteed. Benefits are related by some formula to participants' length of service and salary and are not totally dependent on the assets in the fund. For defined benefit plans, an entry in the Other Changes in the Volume of Assets Account captures changes in the actuarially determined liability resulting from changes in benefit structure. (Such changes are to be distinguished from changes in the age and service composition of the beneficiary pool.) These changes in benefits structure include changes in the formula, reducing the pensionable age or funding for an annual increase (usually defined as constant x per cent per year) in future pensions or in all pensions in the course of payment.

5. Miscellaneous other volume changes in financial assets

52. Any changes in financial assets and liabilities that are not transactions in the Financial Account, that should not be attributed to holding gains or losses, that are not changes in classification and that do not fall into one of the enumerated categories above are to be recorded here.

J. Changes in Classifications and Structure

53. The Other Changes in the Volume of Assets Account records changes in assets and liabilities that reflect nothing more than changes in classification of institutional units among sectors and in the structure of institutional units and changes in the classification of assets and liabilities.

1. Changes in sector classification and structure

54. Reclassifying an institutional unit from one sector to another transfers its entire balance sheet. For example, if an unincorporated enterprise becomes more financially distinct from its owner and takes on the characteristics of a quasi-corporation, it and its balance sheet move from the household sector to the non-financial corporations sector; or if a financial corporation is newly authorized to take deposit, it may be reclassified from "other financial intermediaries" to "other depository corporations."

55. Changes in structure are also recorded here. The Financial Account does not cover the disappearance or appearance of certain financial assets and liabilities because of corporate structuring. When a corporation disappears as an independent legal entity - and thus as an institutional unit in the System - because it is absorbed by one or more other corporations, all claims/liabilities, including shares and other equity that existed between that corporation and those that absorbed it, are eliminated. The disappearance of these financial instruments is recorded under changes in sector classification and structure.

56. Symmetrically, when a corporation is legally split up into two or more institutional units, new claims and liabilities, including shares and other equity, may appear between the new institutional units. The appearance of these financial instruments is recorded in this category also.

2. Changes in classification of assets and liabilities

57. The Capital Account and the Financial Account may record transactions in which an asset is classified differently from the category in which it was held in the opening Balance Sheet. This is the case when the purpose for which an asset is used changes, such as, for example, non-monetary gold becoming monetary gold or pasture becoming building lots. The change in classification is recorded here with the same value for both entries - the value of the asset before its use changed. If the change in the use of a non-produced non-financial asset means a change in its value, this change in value is treated as a change in quality - that is, a volume change - and recorded under economic appearance or economic disappearance of non-produced assets, as described above.

58. Entries are required when items used in the Balance Sheets are reconstructed or reclassified for reasons other than structural changes in institutional units. The same value is used for both asset types here.

a. Monetization/demonetization of gold

59. As explained in <<paragraph 65 of chapter XI, The Financial Account>>, monetization and demonetization of gold are accomplished by entries for changes in the classification of gold held by the monetary authorities, as counterparts to entries in the Capital Account. In the Capital Account, the monetary authorities purchase gold from inventories or valuables held by institutional units or the rest of the world. Monetization occurs when the monetary authorities reclassify the gold from a produced asset to the reserve assets held by the monetary authorities. Similarly, demonetization occurs when the monetary authorities transfer gold from reserve assets to inventories or valuables, which are subsequently sold to institutional units or the rest of the world, with these transactions being recorded in the Capital Account. The flows can usually be valued by reference to the price on organized markets or in bilateral arrangements through central banks.

b. Other changes in classifications of assets or liabilities

60. Changes in land value resulting from a change in use of a particular parcel of land are recorded here, with the same value used for both entries. The counterpart is recorded in economic appearance and disappearance of non-produced assets as a change in quality, which is considered a change in volume, as discussed above. The former - economic appearance - records increases in quality, the later - economic disappearance - records decreases in quality. Other changes that might be recorded here are conversions of dwellings to commercial use or vice versa.

THE REVALUATION ACCOUNT

A. Introduction

61. The Revaluation Account, shown in table XII.2, records the positive or negative holding gains accruing during the accounting period to the owners of financial and non-financial assets and liabilities. Holding gains on assets, whether positive or negative, are recorded on the left side of the account and those on liabilities on the right side. The Revaluation Account shows the nominal holding gains accruing on assets and liabilities. These are then decomposed into neutral holding gains and real holding gains, shown in two sub-accounts. The nominal holding gain on a given quantity of an asset is defined as the value of the benefit accruing to the owner of that asset as a result of a change in its price or, more generally, its monetary value over time. The value of the holding gain on a liability is equal to the change in the price, or monetary value, of that liability but with the sign reversed. A positive holding gain, whether due to an increase in the value of a given asset or a reduction in the value of a given liability, increases the net worth of the unit in question. Conversely, a negative holding gain - i.e., a holding loss - whether due to a reduction in the value of a given asset or an increase in the value of a given liability, reduces the net worth of the unit in question.

62. A neutral holding gain is defined as the value of the holding gain that would accrue if the price of the asset changed in the same proportion as the general price level - that is, merely kept pace with the general rate of inflation or deflation. It is the value of the holding gain needed to preserve the real value of the asset in question intact over time. A real holding gain is defined as the value of the additional command over real resources accruing to the holding of an asset as a result of a change in its price relatively to the prices of goods and services in general in the economy. Nominal, neutral and real holding gains, and the interrelationships between them are explained more fully in the following sections.

63. The balancing item in the Revaluation Account is described as changes in net worth due to nominal holding gains/losses. It is defined as the algebraic sum of the positive or negative nominal holding gains on all the assets and liabilities of an institutional unit. As the Revaluation Account is decomposed into two separate accounts for neutral and real holding gains, respectively, its balancing item may similarly be decomposed into two further balancing items: changes in net worth due to neutral holding gains/losses and those due to real holding gains/losses, respectively. The latter shows how much of the change in the real net worth of an institutional unit is attributable to real holding gains. It is therefore an item of considerable analytic interest.

64. In order to simplify the terminology and exposition, holding losses will not usually be referred to explicitly unless the context requires it. The term "holding gains" is used to cover both holding gains and losses on the

clear understanding that holding gains may be negative as well as positive. Similarly, the term "assets" may be used collectively to cover both assets and liabilities, unless the context requires liabilities to be referred to specifically.

65. Holding gains are sometimes described as "capital gains". The term "holding gain" is widely used in business accounting and is preferred here because it emphasizes the fact that holding gains accrue purely as a result of holding assets over time without transforming them in any way. Holding gains include not only gains on "capital" such as fixed assets, land and financial assets but also gains on inventories of all kinds of goods held by producers, including work-in-progress, often described as "stock appreciation".

1. Nominal holding gains

66. Nominal holding gains depend upon changes in the prices or, more generally, the monetary values, of assets and liabilities over time. The prices in question are the prices at which the assets may be sold on the market, excluding any costs of ownership transfer. Not all assets and liabilities, however, have market prices in the ordinary sense of the term "price". In particular, assets and liabilities denominated in purely monetary terms - such as cash and deposits - do not have physical units with which prices can be associated. In such cases, the relevant "quantity" unit is effectively a unit of currency itself - e.g., one dollar - so that the price per unit is always unity. By definition, therefore, the market prices of such assets and their corresponding liabilities cannot change over time. On the other hand, the relevant quantity unit for an asset such as a bill, bond or share is the security itself, the market price of which may change over time. The term "price" has therefore to be used in a broad sense to cover the unitary prices of assets such as cash, deposits, loans, etc. and the corresponding liabilities as well as conventional market prices.

67. Nominal holding gains may accrue on assets held for any length of time during the accounting period and not merely on assets that appear in the opening or closing balance sheets. Nominal holding gains may refer to any period of time and must be defined accordingly. The nominal holding gain accruing to the owner of a particular asset, or given quantity of a specific type of asset, between two points of time is defined as:

the monetary value of that asset at the later point of time

minus

the monetary value of that asset at the earlier point of time.

The asset itself is assumed not to change, qualitatively or quantitatively, in the meanwhile. In general, the monetary value of an asset is the amount of money that can be realised by selling that asset on the market. In the case of a financial asset that is not transferable, the monetary value is the

amount of principal received by the creditor when the claim is extinguished. Similarly, the monetary value of a non-transferable liability is the amount of money that the debtor must pay in order to discharge the liability. The nominal holding gain G accruing on a given quantity q of some asset between times o and t can be simply expressed as follows:

$$G = (p_t - p_o)q \qquad (1)$$

where p_o and p_t are the prices of the asset at times o and t respectively. For monetary assets and liabilities for which both p_o and p_t are unity by definition, nominal holding gains are always zero. However, the neutral holding gains on monetary assets and liabilities are usually not zero because of general inflation or deflation, and hence the real holding gains are also not zero.

68. Nominal holding gains are calculated with reference to assets or liabilities that themselves remain qualitatively and quantitatively unchanged during the period over which the holding gain is measured. Thus, changes in the value of physical assets such as structures, equipment or inventories held by producers that are attributable to some physical or economic transformation of those assets over time, whether improvement or deterioration, are not counted as holding gains. In particular, the decline in the value of the fixed assets owned by producers due to their physical deterioration or normal rates of obsolescence or accidental damage is recorded as consumption of fixed capital and not as a negative holding gain. Similarly, as explained in <<chapter VI, Production Account, paragraphs >>, when the storage of goods whose supply or demand is subject to seasonal influences is essentially an extension of the process of production, the increase in the value of the goods that is due to this production is not to be counted as a nominal holding gain.

69. The characteristics of financial assets and liabilities may also change over time, in particular the proximity to maturity of securities with fixed redemption dates. For example, most or all of the increase in the market value of a bill or a bond issued at a discount as it approaches its redemption date may be attributable to the accumulation of unpaid interest accruing to its holder. The increase in the market value of a bill or bond due to the accumulation of accrued interest in this way represents a growth in the volume of the asset and is not a price increase. It does not generate a holding gain.

70. The nominal holding gains recorded in the Revaluation Account are those accruing on assets or liabilities, whether realised or not. A holding gain is said to be realised when the asset in question is sold, redeemed, used or otherwise disposed of, or the liability repaid. An unrealised gain is therefore one accruing on an asset that is still owned or a liability that is still outstanding at the end of the accounting period. A realised gain is usually understood as the gain realised over the entire period over which the asset is owned or liability outstanding whether this period coincides with the accounting period or not. However, as holding gains are recorded on an accruals basis in the System, the distinction between realised and unrealised

gains is not needed and does not appear in the classifications and accounts of the System.

71. From a timing point of view, four kinds of nominal holding gains can be distinguished.

(1) Holding gains on assets and liabilities held throughout the accounting period and therefore recorded in both the opening and closing balance sheets. These are unrealised gains.

(2) Holding gains on assets and liabilities held at the beginning of the period and disposed of during the period. These are realised gains.

(3) Holding gains on assets and liabilities acquired during the period and held until the end of the period. These are unrealised gains.

(4) Holding gains on assets or liabilities that are acquired and disposed of during the accounting period and do not appear either in the opening or the closing balance sheets. These are realised gains.

The nominal holding gains recorded in the Revaluation Account cover all four kinds of gains listed above.

2. Neutral holding gains

72. Nominal holding gains are partitioned into neutral holding gains and real holding gains. Neutral holding gains can be regarded as analytical constructs designed to facilitate the derivation of real holding gains. A neutral holding gain is defined as the value of the holding gain that would accrue if the price of the asset changed over time in the same proportion as the general price level. If the price of the asset changes by the same proportion as other prices, on average, its real value - that is, the volume of other goods and services for which it can be exchanged - is neither increased nor decreased, whatever the general rate of inflation. In other words, a neutral holding gain is the value of the nominal holding gain needed to preserve the real value of the asset intact.

73. In order to calculate the neutral holding gain on an asset, it would be desirable to select a comprehensive price index covering as wide a range of goods, services and assets as possible. In practice, the price index for final expenditures would be an acceptable choice for most countries, although other comprehensive indices could be used depending upon the availability of data. A comprehensive index of this kind, however, may be available only once a year, or at best quarterly, and after a significant lapse of time. As holding gains may accrue on assets held for only short periods of time, it may also be necessary to make use of an index that measures changes in prices monthly and which becomes available without too much delay. The consumer

price index (CPI) usually meets these requirements and an acceptable procedure would be to use the CPI to interpolate and extrapolate movements in a more broadly based index in order to calculate neutral holding gains.

74. Let the general price index be denoted by r. The neutral holding gain NG on a given quantity q of an asset between times o and t is then given by the following expression:

$$NG = p_o q\,(r_t/r_o - 1) \qquad (2)$$

where $(p_o q)$ is the monetary value of the asset at time o. The same term r_t/r_o is applied to all assets and liabilities. Thus, the proportionate movements in neutral holding gains are the same for all assets and liabilities, both financial and non-financial.

3. Real holding gains

75. The real holding gain on an asset can be expressed as the difference between the nominal and the neutral holding gain on that asset. Subtracting expression (2) from (1) above, the real holding gain RG on a given quantity q of an asset between times o and t is given by

$$RG = G - NG$$

$$= (p_t/p_o - r_t/r_o)p_o q \qquad (3)$$

The values of the real holding gains on assets thus depend on the movements of their prices over the period in question, relatively to movements of other prices, on average, as measured by the general price index. An increase in the relative price of an asset leads to a positive real holding gain and a decrease in the relative price of an asset leads to a negative real gain, whether the general price level, as measured by r, is rising, falling or stationary.

76. When the relative price of an asset rises over a given period of time, the asset can be exchanged for a greater volume of the goods, services and assets covered by the general price index at the end of the period than at the beginning. The holding gain is described as "real" because it measures the value of the additional (positive or negative) goods, services and assets that may be acquired by the owner of the asset by disposing of it at the end of the period instead of at the beginning.

77. As already noted, the nominal holding gains on financial assets and liabilities whose values are fixed in monetary terms are always zero. During inflation, the neutral gains on such assets and liabilities must be positive, and hence the real holding gains must be negative and equal in absolute value to the neutral gains. In other words, the real value of an asset/liability of fixed monetary value declines both for the creditor and the debtor as a result of inflation. Of course, from the point of view of the debtor a reduction in

the real value of a liability represents an increase in real net worth. In effect, there is implicit transfer of real purchasing power from the creditor to the debtor equal in value to the negative real holding gain on the asset/liability. When such transfers are anticipated by creditors, correspondingly higher nominal rates of interest may be demanded on loans to compensate for the expected transfers or loans with fixed monetary values may be replaced by indexed loans.

78. As changes in relative prices may be either positive or negative, the owners of some assets benefit from real holding gains while the owners of other assets experience real holding losses. It cannot be assumed that such real gains and losses cancel each other out, even in a closed economy, as it is possible that asset owners benefit at the expense of units that do not own any or vice versa. Whether or not they cancel out, it is clear that real holding gains may lead to a significant redistribution of real net worth among institutional units, sectors and even countries, the extent of which depends on the amount of variation in the relative price changes taking place. While such variation may occur even when there is no general inflation, there are systematic effects that are associated with the general rate of inflation as a result of the decline in the real values of monetary assets and liabilities when the general price level is rising.

79. As real holding gains increase or decrease the purchasing power of the owners of assets, they must exert an influence on their economic behaviour. Real holding gains are important economic variables in their own right that need to be taken into account as well as income for purposes of analysing consumption or capital formation. It can be argued that real holding gains ought to be assimilated with income as defined in the System to obtain a more comprehensive measure of income, but there is no consensus on this. Apart from the practical difficulty of estimating real holding gains and losses, it is likely that their impact on economic behaviour is not the same as that of income received in cash or in kind. Nevertheless, it is clear that information on real holding gains needs to be made available to users, analysts and policy makers.

B. The Measurement of Holding Gains

80. In order to obtain precise definitions of holding gains over periods of time during which the quantities of assets held may be varying from day to day, it is necessary to utilise algebraic expressions involving prices and quantities similar to those used to define index numbers. In order to simplify the main text, the derivation of the algebraic expressions that define nominal, neutral and real holding gains is given in an annex to this chapter. The main conclusions of the annex are summarised in this section.

1. Nominal holding gains

81. As already explained, the total nominal holding gains accruing on a particular category of asset over a given period of time include those accruing on assets acquired or disposed of during the accounting period as well as on assets that figure in the opening or closing balance sheets. It follows that it is not possible to calculate total holding gains from balance sheet data on their own, except in certain special cases or on certain assumptions. In order to calculate total holding gains directly, therefore, it is necessary to keep records of all the assets acquired and disposed during the accounting period and the prices at which they were acquired and disposed of, as well as the price and quantities of assets held at the beginning and end of the period. In practice, however, the requisite data are unlikely to be available, although the increasing use of micro-computers for both management and accounting purposes by businesses may make the direct calculation of total nominal holding gains using the kinds of formulae given in the annex increasingly feasible.

82. However, if records are kept of the values of all transactions and other volume changes in assets, without necessarily recording the prices at which those transactions or changes occur, it is shown in the annex that the value of the total nominal gains may be derived residually by subtracting the total value of all transactions and other volume changes from the difference between the values of the asset recorded in the closing and opening balance sheets. This indirect method of calculating total nominal holding gains is only valid when appropriate valuation methods are used both for balance sheets and for transactions and other changes. Quantities of the asset held at the beginning and end of the period must be valued in the opening and closing balance sheets at the prices that would have to be paid to acquire them at the times to which the balance sheets relate, and all actual or imputed transactions or other changes must be valued at the prices prevailing at the times they take place.

83. The basic identity linking balance sheets, transactions, other volume changes and nominal holding gains may be expressed as follows:

the value of the asset in the opening balance sheet,

plus

the value of quantities of the asset acquired, or disposed of, in transactions,

plus

the value of other volume changes in the asset,

plus

the value of the nominal holding gains on the asset

equals

the value of the asset in the closing balance sheet.

The identity follows from the ways in which the various items are defined and valued. Each of the five elements that make up the identity can be calculated directly and independently of the other four elements. Thus, each element has the same status, none of them being defined residually as a balancing item. The identity is similar in this respect to the identity between the values of the total supplies and total uses of some good or service.

84. Nevertheless, it follows that if any four out of the five elements are calculated directly, the fifth can be estimated residually. For this reason, the identity can be exploited to estimate nominal holding gains from the other four elements, but without this implying that nominal holding gains are a balancing item in the System.

85. There may be situations in which the only information available about certain kinds of assets consists of their values in the opening and closing balance sheets. This may happen in the case of certain financial assets, for example, or inventories. It can be seen from the above identity that it is not possible to infer from balance sheet data alone either the total value of the transactions and other volume changes taking place within the accounting or the total value of the holding gains, but only their continued value. However, in certain special cases it may be possible to isolate one or the other. For example, if the price of the asset remains constant throughout the accounting period, the difference between the opening and closing balance sheet values must be entirely attributable to transactions and other volume changes. This condition is satisfied for monetary assets, for example, but not for financial assets such as bills or bonds whose market prices may change during the accounting period. Similarly, it is not possible to infer the value of changes in inventories from balance sheet data alone unless the price of the good in question happens to remain constant throughout the period. In general, goods entering or leaving inventories must be valued at the prices prevailing at the times the changes occur as if they were actually being bought or sold on the market.

86. Nominal holding gains may accrue on an asset that does not appear in either the opening or closing balance sheet if there have been transactions or other changes in the asset during the accounting period. Suppose a financial asset, such as a share, is purchased speculatively and sold again within the same accounting period. If the sale price is not equal to the purchase price, neither the total value of the transactions nor nominal holding gains can be zero. Indeed, the nominal holding gain must be equal to the total value of the transactions (the sale less purchase) but with the opposite sign. Unless the nominal holding gain is recorded, the value of the transactions cannot be reconciled with the zero values in the balance sheets. Another example is provided by producers who build up inventories and run them down again, all within a single accounting period. If the price of the good rises while held in inventory, the value of the withdrawals exceeds that of the entries, so

that the total value of the changes in inventories is negative. The value of the nominal holding gains is equal to the value of the change in inventories, but with the opposite sign.

2. Neutral holding gains

87. Neutral holding gains have to be subtracted from nominal holding gains to obtain real holding gains. As already explained, the neutral holding gain on an asset over a given period of time is equal to the value of the asset at the beginning of the period multiplied by the proportionate change in some comprehensive price index selected to measure the change in the general price level. Neutral holding gains can therefore be easily calculated for assets held throughout the accounting period that appear in both the opening and closing balance sheets. It is more difficult, however, to keep track of the neutral holding gains on assets that are acquired or disposed of during the accounting period as it is necessary to know the times at which the various acquisitions and disposals took place - information that is unlikely to be available in practice. For this reason, it will usually be difficult, and sometimes impossible, to obtain accurate, precise estimates of neutral, and hence real, holding gains.

88. A possible method of estimation suggested in the annex is to use the same information, and a similar methodology, as that used to calculate nominal holding gains. The method of estimating neutral holding gains has three steps:

(1) The closing balance sheet value is revalued to what it would have been if the price of the asset had changed at the same rate as the general price index over the period.

(2) The total value of the transactions and other volume changes is revalued to eliminate the effect of any change in the relative price of the asset during the period.

(3) The adjusted value for total transactions and other volume changes is subtracted from the difference between the adjusted closing balance sheet value and the opening balance sheet value.

89. It is worth noting that there is no simple method that can be used in all circumstances to divide, or partition, the absolute values of nominal holding gains into neutral and real holding gains given that holding gains - whether nominal, neutral or real - can be negative as well as positive. For example, the nominal holding gains on monetary assets are zero, but there can nevertheless be substantial positive neutral gains and negative real gains, depending upon the general rate of inflation.

3. Real holding gains

90. As real holding gains may be obtained residually by subtracting neutral from nominal holding gains, the feasibility of calculating real holding gains depends on the feasibility of calculating neutral and nominal gains. There is nothing further to add so far as their estimation is concerned.

C. Estimates of Holding Gains from Balance Sheet Data

91. As already noted, there may be situations in which the only information available about certain kinds of assets consists of balance sheet data. This situation is quite common in the case of inventories, for example, or certain types of financial assets. It should be noted that in the case of inventories estimates of both the transactions and the nominal holding gains have to be made in order to be able to compile the Production Account and hence other accounts of the System.

92. Although it is not possible to obtain reliable, accurate estimates of transactions and holding gains from balance sheet data alone, it becomes possible to deduce the values of both the transactions and other changes and the nominal holding gains if assumptions are made about the paths followed by both the prices and the quantities of an asset between the beginning and the end of the accounting period.

93. The simplest and most convenient assumptions to make are that both the prices and quantities of the asset change at constant linear rates between the beginning and end of the accounting period: that is, that the sequences of prices and quantities linking the opening and closing levels are simple arithmetic progressions. Given these assumptions it is easy to show that:

the value of the transactions and other volume changes = $\bar{p}(q_n - q_o)$ (4)

the value of the nominal holding gains = $\bar{q}(p_n - p_o)$ (5)

where $\bar{p} = \frac{1}{2}(p_o+p_n)$

and $\bar{q} = \frac{1}{2}(q_o+q_n)$

94. It is also easily verified that (4) and (5) sum identically to equal the value of the difference between the values recorded in closing and opening balance sheets, $(p_nq_n-p_oq_o)$. If $q_n/q_o > p_n/p_o$, the value of the transactions given by (4) exceeds the value of the holding gains given by (5). If the two ratios are equal, the difference between the values of the opening and closing

stocks is divided equally between transactions and holding gains. Equation (4) is often used to estimate the value of changes in inventories, although it is equally applicable to other assets, including financial assets.

95. The nominal holding gains given by (5) may be further decomposed into neutral and real holding gains, given the additional information on the change in the general price index over the accounting period. Let r_n equal the value of the general price index on day n based on $r_o = 1$. It can easily be shown that

the value of the neutral holding gains	=	$(r_n-1)p_o\bar{q}$	(6)
the value of the real holding gains	=	$(p_n/p_o-r_n)p_o\bar{q}$	(7)

The real holding gains are, of course, zero if the change in the price of the asset p_n/p_o is equal to the change in the general price index r_n.

96. The quality of the approximate measures given in expressions (4) and (5) depends on the realism of the underlying assumptions about the movements of prices and quantities. While the assumption that the price of the asset increases at a constant rate during the accounting period may be not unreasonable, the assumption that the quantity of the asset changes at a constant rate may be questionable in many cases. In particular, if there are fluctuations in the quantity of the asset held, estimates based on expressions (4) to (7) may diverge significantly from the true figures. Fluctuations in inventories are likely to occur in industries in which the supply or the demand for the product is subject to strong seasonal influences. The use of expressions (4) to (7) may give poor estimates in such situations.

97. Expressions (4) and (5), which differ only in so far as the p's and q's are interchanged, display clearly the duality between the values of transactions and other changes in assets and the values of the nominal holding gains on those assets. Approximate estimates of this kind may also serve as a useful check on the value of nominal holding gains derived residually from data on transactions and other changes and the difference between the closing and opening balance sheet values. In many situations, there may be no good reason for expecting the approximate measure of the value of nominal holding gains given by (5) to diverge markedly from the true measure. In such cases, a major discrepancy between a measure of nominal holding gains obtained residually from transactions and balance sheet data and the approximate measure may bring into question the reliability and consistency of the entire data set, including the transactions data, and signal the need for revisions.

D. Holding Gains by Type of Asset

98. This section examines the ways in which holding gains may be measured for different types of assets.

1. Non-financial assets

a. Fixed assets

99. Nominal holding gains on fixed assets may be obtained by subtracting the total value of transactions, including consumption of fixed capital, and other volume changes from the difference between values of the assets recorded in the closing and opening balance sheets. For this purpose, the stocks of assets recorded in the balance sheets must be measured net of the accumulated consumption of fixed capital and must be valued at the purchasers' prices prevailing on the date to which the balance sheet relates.

100. In this context, it is convenient to make use of the concept of net fixed capital formation even though this aggregate is not shown explicitly in the accounts of the System. Net fixed capital formation is defined as:

gross fixed capital formation

minus

consumption of fixed capital.

The basic identity linking transactions, other volume changes, nominal holding gains and balance sheet values is then written as follows for fixed assets:

(1) the net value of the stock of the fixed asset at the beginning of the period;

plus

(2) the value of net fixed capital formation in the asset (i.e., the net value of all transactions);

plus

(3) the value of other volume changes in the asset;

plus

(4) the value of nominal holding gains on the asset;

equals

(5) the net value of the stock of the fixed asset at the end of the period.

It is worth noting that, even in the absence of other volume changes, the difference between the net (or gross) values of the opening and closing stock of an asset valued at current prices is not equal to net (or gross) fixed capital formation at current prices, unless the price of the asset remains constant throughout the period. Apart from any other volume changes, the difference between the net values of the opening and closing stocks of fixed assets, valued at the beginning and end of period prices, respectively, must include nominal holding gains as well as net fixed capital formation. Such gains could be relatively large when the price of the asset is rising strongly within the period. In effect, the transactions taking place within the period are valued at the average prices of the period, which may be expected to lie between the opening and closing prices. For this reason, it is important to base the calculation of the consumption of fixed capital on the average prices of the period, as recommended in <chapter VI, Production Account> and not on the opening and closing prices.

101. Nominal holding gains may occur on existing fixed assets either because of general inflation or because the relative price of the asset changes over time. When assets of the same kind are still being produced and sold on the market, an existing asset should be valued in the opening or closing balance sheet at the current purchasers' price of a newly produced asset less the accumulated consumption of fixed capital up to that time also calculated on the basis of the prices prevailing at the time the balance sheet is drawn up. Changes in the prices of new assets between the beginning and end of the accounting period will therefore lead to nominal holding gains on existing assets of the same type. When new assets of the same type are no longer being produced, the valuation of existing assets may pose difficult conceptual and practical problems. If broadly similar kinds of assets are still being produced, even though their characteristics may differ significantly from those of existing assets (for example, new models of vehicles or aircraft), it may be reasonable to assume that, if the existing assets were still being produced, their prices would have moved in the same way as those of new assets. However, such an assumption becomes questionable when the characteristics of new assets are much improved by technical progress.

102. It may also happen that after an existing asset has been used in production for some time that some event occurs, or discovery is made, that reduces the quantity or quality of that asset by curtailing the services that it can contribute to production over its remaining life. For example, a fixed asset may be discovered to have an unsuspected fault in its structure or design; its use in production may generate unexpected environmental damage; or the product that it is used to produce may turn out to have previously unknown harmful or undesirable properties. Any of these events may require the asset to be withdrawn from production much sooner than originally planned.

103. Similarly, the appearance of a substitute either for the asset itself, or for the product it is used to produce, may lead to a major decline in

demand for the asset and hence to a reduction in its service life. These kinds of changes can be subsumed under the general heading of unforeseen obsolescence. They are attributable directly or indirectly to new information, new discoveries, improvements in technology, or other changes. The original service lives expected at the time the assets are first acquired usually allow for a certain amount of gradual obsolescence over the course of time, and such foreseen obsolescence enters directly into the calculation of consumption of fixed capital by influencing the flow of expected future services and their prices that the owner of an asset foresees. However, discrete reductions in the value of an existing fixed asset due to exceptional, unexpected reductions in the remaining flow of services that can be obtained from that asset as a result of unforeseen obsolescence are recorded as an other change in volume and not as consumption of fixed capital.

b. Inventories

104. The estimation of nominal holding gains on inventories may be difficult because of lack of data on transactions or other volume changes in inventories. As explained in <chapter VI, Production Account>, transactions in inventories may not be adequately recorded because they are internal transactions. Goods entering inventories can be regarded as being acquired by the owner of an enterprise from itself as producer, while goods leaving inventories can be regarded as being disposed of by the owner to the producer for use in production or for sale. These internal transactions should be valued at the prices prevailing at the times they take place in the same way as transactions in any other kind of asset. When the transactions are properly valued in this way, nominal holding gains on inventories are given as follows:

(1) the value of the closing inventories at end-of-the-period prices;

minus

(2) the value of the opening inventories at beginning-of-the-period prices;

minus

(3) the value of entries minus the value of withdrawals and current losses, valued at the prices prevailing at the times the entries and withdrawals take place;

minus

(4) the value of other volume changes.

Other volume changes are likely to consist of inventories of goods destroyed as a result of exceptional events such as natural disasters (floods, earthquakes, etc.) or major fires. Current losses of goods from inventories - for

example, losses due to regular wastage or pilfering - are grouped with withdrawals. Both exceptional and current losses on inventories obviously reduce the magnitude of any nominal holding gains on inventories.

105. Unless records are kept of the quantities of goods entering and leaving inventories and their prices at those times, it is not possible to measure the value of changes in inventories directly. As such records may not be available, it becomes necessary to try to deduce the value of changes in inventories from the value and quantities of the opening and closing inventories using methods such as those illustrated in equations (4) and (5) above that attempt to partition the difference between the values of the opening and closing stocks of assets into transactions and nominal holding gains. Such methods are only as good as the assumptions on which they are based. The difficulty of estimating the value of changes in inventories from balance sheet data alone obviously increases as the rate of inflation increases. It should also be noted that this is not only a problem for the accumulation accounts as the values of changes in inventories of inputs and outputs are needed in order to measure intermediate consumption, output and value added and hence all the balancing items of the System.

106. Work-in-progress is a stock of outputs that are not yet in a form in which they are ready for sale, use or transfer to other institutional units. Additions to work-in-progress are recorded as they occur and valued at the prices at those times. The prices are estimated by multiplying the actual or estimated basic price of the finished product at the time the addition to the work-in-progress takes place by the fraction of the total production costs incurred in producing the addition. Work-in-progress carried forward from the previous period is valued in the opening balance sheet using the price of the finished product at the date to which the balance sheet relates. Similarly, the total amount of work-in-progress recorded in the closing balance sheet is valued using the price of the finished product at the end of the period. Withdrawals from work-in-progress take place when the production is completed, the total work-in-progress completed during the entire production process being then transformed into a finished product. Nominal holding gains on work-in-progress may then be obtained residually by subtracting the value of the additions minus withdrawals from work-in-progress during the period from the difference between the opening and closing balance sheet values. Because some production processes may take years to complete, the whole of the output from some production process during a given period may be entered into inventories as additions to work-in-progress. Even when there is only modest inflation there may be substantial nominal holding gains on the work-in-progress.

2. Financial assets

a. Assets and liabilities with fixed monetary values

107. The monetary values of some assets and liabilities - cash, deposits, loans, advances, credits, etc. - remain constant over time. As already noted, the "price" of such an asset is always unity while the quantity is given by the number of units of the currency in which they are denominated. The nominal holding gains on such assets are always zero. For this reason, the difference between the values of the opening and closing stocks of such assets is entirely accounted for by the values of the transactions in the assets, this being one case in which it is possible to deduce the latter from the balance sheet figures.

108. In order to calculate the neutral and real holding gains on assets of fixed monetary value, however, data on the times and values of transactions are needed as well as the opening and closing balance sheet values. In principle, the exact expression for neutral holding gains given in the annex to this chapter should be used. Suppose, for example, a loan is made and repaid within the accounting period while the general price level is rising. The neutral gain on the loan is positive and the real gain negative, the amount depending upon the length of time the loan is outstanding and the rate of inflation. It is impossible to record such real losses without data on the value of the loans made and repaid during the accounting period and the times at which they are made and repaid. In general, it may be inferred that if the total absolute value of the positive and negative transactions is large in relation to the opening and closing balance sheet levels, approximate estimates of the neutral and real holding gains on monetary assets and liabilities derived from balance sheet data alone may not be very satisfactory. Even recording the values of financial transactions on a gross basis - i.e., recording loans made and repaid separately as distinct from the total value of loans minus repayments - may not be sufficient without information on the timing of the loans.

b. Bonds

109. A bond is a security that gives the holder the unconditional right to a fixed money income or contractually determined variable money income over a specified period of time and also the right to a fixed sum as repayment of principal on a specified date or dates, except in the case of perpetual bonds. Bonds are usually traded on markets and the holder of a bond may change several times during the life of the bond. The issuer of such a bond may therefore repay the principal outstanding at any time by purchasing it back in advance of the date on which it matures.

110. As explained in <chapter VII, Primary Distribution of Income>, when bonds are issued at a discount, including deep discounted and zero coupon bonds, the difference between its issue price and its face or redemption value

when it matures measures the total interest that the issuer is obliged to pay over the life of the bond assuming that market interest rates do not change. Such interest is recorded as property income payable by the issuer of the bond and receivable by the holder of the bond in addition to any coupon interest actually paid by the issuer at specified intervals over the life of the bond. In principle, the interest accruing is treated as being simultaneously reinvested in the bond by the holder of the bond. It is, therefore, recorded in the Financial Account as the acquisition of an asset which is added to the existing asset. Thus the gradual increase in the market price of a bond that is attributable to the accumulation of accrued, reinvested interest reflects a growth in the principal outstanding - that is, in the size of the asset. It is essentially a quantum or volume increase and not a price increase. It does not generate any holding gain for the holder of the bond or holding loss for the issuer of the bond. The situation is analogous to that of a good, such as wine, that matures while it is being stored. Any increase in the price of the wine that is attributable to an improvement in its quality reflects an increase in volume and not price. Bonds change qualitatively over time as they approach maturity and it is essential to recognize that increases in their values due to the accumulation of accrued interest are not price changes and do not generate holding gains.

111. The market prices of bonds also change, however, when the market rates of interest change, the market prices varying inversely with the interest rate movements. The impact of a given interest rate change on the price of an individual bond is less, the closer the bond is to maturity. Changes in bond prices that are attributable to changes in market rates of interest constitute price and not quantum changes. They therefore generate nominal holding gains or losses for both the issuers and the holders of the bonds. An increase in interest rates generates a nominal holding gain for the issuer of the bond and an equal nominal holding loss for the holder of the bond, and <u>vice versa</u> in the case of fall in interest rates.

112. Nominal holding gains or losses may accrue on bills in the same way as for bonds. However, as bills are short term securities with much shorter times to maturity, the holding gains generated by interest rate changes are generally much smaller than on bonds with the same face values.

E. <u>Foreign Assets</u>

113. Foreign assets consist mainly of financial claims over non-resident institutional units. All immovable assets such as land and buildings within an economic territory are treated in the System as owned by resident units, including those legally owned by foreigners. When foreigners own land or buildings, their ownership is deemed to be delegated to notional resident units. The equity of such a notional unit is then owned by the foreign unit.

114. The value of a foreign asset is measured by its current value in foreign currency converted into the currency of the country in which its owner is resident at the exchange rate. Nominal holding gains may therefore occur not

only because the price of the asset in local currency changes but also because the exchange rate changes. The total value of the nominal holding gains accruing over the period may be calculated in the usual way by subtracting the value of transactions from the difference between the opening and closing balance sheet values. For this purpose, transactions in the foreign assets must be converted into the national currency using the exchange rates at the times the transactions occur, while the opening and closing balance sheet values must be converted using the exchange rates prevailing at the dates to which the balance sheets relate. This implies that the total value of the transactions - acquisitions less disposals - expressed in the foreign currency is, in effect, converted by a weighted average exchange rate in which the weights are given the values of transactions conducted on different dates.

115. Neutral holding gains are calculated in the same way as for any other type of asset by calculating what the holding gains would have been if the prices of the assets, expressed in national currency, had moved in the same way as the general internal price level. Real holding gains, again expressed in national currency, can then be derived residually by subtracting the neutral from the nominal gains. The real holding gains (losses) of creditors in one country need not be equal to the real holding losses (gains) of debtors on the same assets in another country when the general rates of inflation are not the same in the two countries.

CHAPTER XII ANNEX
THE DEFINITION AND MEASUREMENT OF HOLDING GAINS

A. The Measurement of Nominal Holding Gains

1. Nominal holding gains must be calculated not only for assets held throughout the accounting period but also for assets acquired or disposed of during the course of the period. Otherwise, as explained below, it is not possible to reconcile data on transactions or other changes in assets with the opening and closing balance sheet figures. The first requirement, therefore, is to obtain a measure of the total nominal holding gains on the stock of some asset, given that the quantity held and its price may vary at any time throughout the accounting period. The asset may be of any kind - a financial asset, a fixed asset or a stock of some material, work-in-progress, or a finished product held by a producer.

2. The accounting period must be divided into a large number n of short sub-periods, say days. The price of the asset may vary from day to day and transactions or other changes may take place each day.

Let q_t = the quantity of the asset held at the end of day t;

p_t = the price of a unit of the asset during day t;

and d_t = $q_t - q_{t-1}$

t = 0, 1, 2 ... n.

The change in the quantity of an asset from one day to another, d_t, has two distinct components: one is due to the deliberate acquisition or disposal of an asset in transactions with other institutional units; the other is due to other volume changes such as the destruction of a physical asset by a natural disaster. Thus, $p_t d_t$ represents the combined value of the transactions and other changes in the asset taking place on day t. Balance sheets are compiled at the ends of day o and day n but not in between. Note that, by definition,

$$q_n - q_o = \sum_{1}^{n} d_t \qquad (1)$$

and $\Sigma p_t d_t$ denotes the value of all the transactions or other changes in the asset taking place during the accounting period and recorded in the Capital, Financial and Other Changes in the Volume of Assets Accounts of the System.

3. Suppose, initially, that the opening stock of the asset is held throughout the accounting period. The nominal holding gain on that stock would be $(p_n - p_o)q_o$.

4. Suppose, next, a single change in the quantity occurs on day t as a

result of a purchase, sale or other factor. The total nominal holding gain over the period as a whole, denoted by G, is then given by

$$G = (p_n - p_o)q_o + (p_n - p_t)d_t \qquad (2)$$

If dt is positive, the second term in (2) measures the holding gain on the additional quantity of the asset between time t when it is acquired and the end of the accounting period. If d_t is negative, the second term measures the amount that needs to be deducted from $(p_n - p_o)q_o$ because of the quantity disposed of on day t. Equation (2) can be generalised to cover any number of changes within the accounting period, as follows:

$$G = (p_n - p_o)q_o + \sum_{1}^{n}(p_n - p_t)d_t \qquad (3)$$

This expression gives the total nominal holding gain accruing to the holder of an asset over the period as a whole, however many changes occur in the quantity of the asset held. The expression is valid in all circumstances, covering situations in which either or both of q_o and q_n are zero.

5. Expression (3) provides a direct definition of the value of the total nominal holding gains on asset over a given period of time and shows how they may be calculated <u>independently</u> of the other accounts of the System. It follows that neutral and real holding gains may similarly be calculated directly and independently of the rest of the System. It can also be seen that holding gains are the duals of the values of transactions and other quantity changes in the sense that the values of transactions and other quantity changes are obtained by applying prices to changes in quantities whereas the values of holding gains are obtained by applying quantities to changes in prices.

6. In practice, however, business accounting records are usually not kept in such a way as to make it possible to calculate holding gains directly, except in certain special cases or on certain assumptions, as explained below. In order to calculate holding gains directly, it would be necessary to keep records of the times and prices at which all assets are acquired and the times and prices of which they are subsequently disposed of whether by sale, use or transfer. Such information is not readily available in practice.

7. However, because of the duality between transactions or other quantity changes and holding gains, it is possible to derive the value of holding gains indirectly from balance sheet data and the values of transactions and other changes. This may be shown as follows. It follows from (1) above that

$$p_n(q_n - q_o) = p_n \sum_{1}^{n} d_t \qquad (4)$$

Substituting for $p_n\Sigma d_t$ in (3) and rearranging, we obtain the following identity:

$$G = (p_n q_n - p_o q_o) - \Sigma p_t d_t. \qquad (5)$$

In this identity, $p_o q_o$ and $p_n q_n$ are the opening and closing balance sheet values while $\Sigma p_t d_t$ is the total value of the transactions and other changes taking place within the accounting period.

8. Expression (5) is one form of the basic identity that closes the entire System of accounts including the balance sheets. It also provides a practical method of calculating nominal holding gains by subtracting the value of all transactions or other changes from the difference between the values of the stock of the asset recorded in the opening and closing balance sheets. For the identity to hold, it is of course necessary that the System's general valuation rules are respected: namely, all transactions or other changes in assets have to be recorded at the prices prevailing at the times they take place and the assets recorded in the balance sheets must be valued at the prices prevailing at the dates to which the balance sheets relate. For example, goods entering or leaving inventories must be valued at the prices prevailing at the times they enter or leave as distinct from the prices at which the goods may have been originally acquired.

9. The basic identity given in (5) can be expressed verbally as follows:

the difference between the closing and opening balance sheet values is

<u>identical in value with</u>

the total value of all transactions or other volume changes in assets occurring during the accounting period

<u>plus</u>

the total value of all the nominal holding gains <u>accruing</u> within the accounting period.

The identity follows from the ways in which the various elements are defined, valued and recorded. Given the identity, it is unnecessary to estimate all three components directly; the value of any one component can be estimated residually from the other two components.

10. It is important to note that, although nominal holding gains may be estimated residually by subtracting the value of transactions and other volume changes in assets from the difference between the closing and opening balance sheet values, they are <u>not defined</u> residually. Nominal holding gains are not a balancing item like value added, operating surplus, etc. As already noted, nominal holding gains can be measured directly and independently of all other items in the accounts. In principle, either of the other two components in

the above identity could equally well be derived residually from information on the other two. For example, the difference between the opening and closing balance sheet values (but not their absolute levels) can be deduced from complete information on transactions, other changes in assets and nominal holding gains.

B. The Measurement of Neutral and Real Holding Gains

1. Neutral holding gains

11. A neutral holding gain has been defined as the holding gain that would accrue if the price of the asset moved over time in exactly the same way as some specified general price index. In order to calculate it, therefore, it is necessary to value the quantity of the asset held at each point of time in the accounting period by its price at the beginning of the period multiplied by the general price index based on the beginning of the period. Let r_t be the selected general price index based on day o so that $r_o = 1$. If the price of the asset moved in proportion to this index, the value of the stock of the asset held at the end of the accounting period, that is, on day n, would be $r_n p_o q_n$ instead of $p_n q_n$. The value of the transactions or other changes taking place during the period would be

$$\sum_{1}^{n} r_t p_o d_t .$$

The value of the neutral holding gains, NG, is therefore given by

$$NG = (r_n p_o q_n - p_o q_o) - \Sigma r_t p_o d_t . \qquad (6)$$

This expression is the equivalent of that for nominal holding gains given in (5).

12. While it is possible to calculate $r_n p_o q_n$, it is likely to be impossible to calculate $\Sigma r_t p_o d_t$ exactly as it requires data on the values of the transactions on individual days and not simply their aggregate for the accounting period as a whole. In practice, therefore, it may be necessary to estimate the value of $\Sigma r_t p_o d_t$ by adjusting the known value of $\Sigma p_t d_t$, the total value of all transactions and other volume changes. For this purpose, it is convenient to make use of the ratio of the change in the general price index

to the change in the price of the asset over the period as a whole. Define:

$$k = \frac{r_n/r_o}{p_n/p_o} = \frac{r_n p_o}{p_n} \qquad (7)$$

when $r_o=1$. k is a measure of the change in the relative price of the asset over the period as a whole and must be known if there is to be any possibility of calculating neutral and real holding gains. The corresponding ratio at the middle of the period can be estimated to be $k^{\frac{1}{2}}$ and this term can be applied to $\Sigma p_t d_t$ to obtain an estimate of what the total value of the transactions and other changes would have been if the price of the asset had increased over the period as a whole by the same proportion as the general price index. Replacing $\Sigma r_t p_o d_t$ by $k^{\frac{1}{2}}\Sigma p_t d_t$ and $r_n p_o q_n$ by $k p_n q_n$ gives the following estimate of neutral holding gains

$$NG = (kp_n q_n - p_o q_o) - k^{\frac{1}{2}}\Sigma p_t d_t. \qquad (8)$$

This expression is computable. It requires the same information as that used to calculate nominal holding gains plus information on the change in the relative price of the asset over the period as a whole.

2. Real holding gains

13. Real holding gains are obtained by subtracting the value of the neutral holding gains from the nominal holding gains. Subtracting (6), the exact expression for neutral holding gains, from (5), we obtain:

$$RG = (1-k)p_n q_n - \Sigma(p_t - r_t p_o)d_t. \qquad (9)$$

Alternatively, subtracting (11), the estimate of neutral holding gains, from (7), we obtain:

$$RG = (1-k)p_n q_n - (1-k^{\frac{1}{2}})\Sigma p_t d_t. \qquad (10)$$

14. The feasibility of calculating (10) is, of course, determined by the feasibility of calculating (8). Once the value of the neutral holding gains have been calculated, the real holding gains are obtained simply by subtracting the neutral gains from the corresponding nominal gains. It can be seen from (10) that the estimated real holding gains must be zero if k=1: that is, if the relative price of the asset is unchanged over the period as a whole. It may also be noted that if there are no transactions or other volume changes taking place in the accounting period, both expressions (9) and (10) reduce to the following:

$$(1-k)p_n q_n = (p_n/p_o - r_n)p_o q_o \qquad (11)$$

This is the same as the original expression (3) in the main text used to define the real holding gain on a given quantity of an asset.

TABLE III.1 ACCOUNT III.3.1: OTHER CHANGES IN VOLUME OF ASSETS ACCOUNT

13-Jun-92
14:02

CHANGES IN ASSETS							CHANGES IN LIABILITIES AND NET WORTH					
S.1 TOTAL ECONOMY	S.15 NON PROFIT INSTITUTIONS SERVING HOUSEHOLDS	S.14 HOUSEHOLDS	S.13 GENERAL GOVERNMENT	S.12 FINANCIAL CORPORATIONS	S.11 NON-FINANCIAL CORPORATIONS	TRANSACTIONS AND BALANCING ITEMS	S.11 NON-FINANCIAL CORPORATIONS	S.12 FINANCIAL CORPORATIONS	S.13 GENERAL GOVERNMENT	S.14 HOUSEHOLDS	S.15 NON PROFIT INSTITUTIONS SERVING HOUSEHOLDS	S.1 TOTAL ECONOMY
						AN. Non-financial Assets						
						AN.1 Produced assets						
						K.4 Economic appearance of produced assets						
						K.7 Catastrophic losses						
						K.8 Uncompensated seizures						
						K.9 Other volume changes in non-financial assets n.e.c.						
						K.12 Changes in classifications and structure (1)						
						K.12.1 Changes in sector classification and structure						
						K.12.2 Changes in classification of assets and liabilities (1)						
						K.12.22 Changes in classification of assets or liabilities (1) other than monetization/demonetization of gold						
						AN.2 Non-produced assets						
						K.1 Economic appearance of non-produced assets						
						K.5 Natural growth of non-cultivated biological resources						
						K.6 Economic disappearance of non-produced assets						
						K.61 Depletion of natural assets						
						K.62 Other economic disappearance of non-produced assets						
						K.7 Catastrophic losses						
						K.8 Uncompensated seizures						

						K.9	Other volume changes in non-financial assets n.e.c.												
						K.12	Changes in classifications and structure (1)												
						K.12.1	Changes in sector classification and structure												
						K.12.2	Changes in classification of assets and liabilities (1)												
						K.12.22	Changes in classification of assets or liabilities (1) other than monetization/demonetization of gold												
						AF.	Financial assets												
						K.7	Catastrophic losses												
						K.8	Uncompensated seizures												
						K.10	Other volume changes in financial assets and liabilities n.e.c.												
						K.12	Changes in classifications and structure												
						K.12.1	Changes in sector classification and structure												
						K.12.2	Changes in classification of assets and liabilities												
						K.12.21	Monetization/demonetization of gold												
						K.12.22	Changes in classification of assets or liabilities other than monetization/demonetization of gold												
						B.10.2	CHANGES IN NET WORTH DUE TO OTHER CHANGES IN VOLUME OF ASSETS												

TABLE XII.2 ACCOUNT III.3.2 : REVALUATION ACCOUNT

11-Jun-92
14:14

CHANGES IN ASSETS								CHANGES IN LIABILITIES AND NET WORTH						
ACCOUNTS	S.1 TOTAL ECONOMY	S.15 NON PROFIT INSTITUTIONS SERVING HOUSEHOLDS	S.14 HOUSEHOLDS	S.13 GENERAL GOVERNMENT	S.12 FINANCIAL CORPORATIONS	S.11 NON-FINANCIAL CORPORATIONS	TRANSACTIONS AND BALANCING ITEMS	S.11 NON-FINANCIAL CORPORATIONS	S.12 FINANCIAL CORPORATIONS	S.13 GENERAL GOVERNMENT	S.14 HOUSEHOLDS	S.15 NON PROFIT INSTITUTIONS SERVING HOUSEHOLDS	S.1 TOTAL ECONOMY	ACCOUNTS
III.3.2							K.11 Nominal holding gains							III.3.2
							AN. Non-financial assets							
RE-VALUATION ACCOUNT							AN.1 Produced assets							RE-VALUATION ACCOUNT
							AN.2 Non-produced assets							
							AF. Financial assets							
							AF. Liabilities							
							B.10.3 CHANGES IN NET WORTH DUE TO NOMINAL HOLDING GAINS/LOSSES							
III.3.2.1							K.11.1 Neutral holding gains							III.3.2.1
							AN. Non-financial assets							
NEUTRAL HOLDING GAINS ACCOUNT							AN.1 Produced assets							NEUTRAL HOLDING GAINS ACCOUNT
							AN.2 Non-produced assets							
							AF. Financial assets							
							AF. Liabilities							
							B.10.31 CHANGES IN NET WORTH DUE TO NEUTRAL HOLDING GAINS/LOSSES							
III.3.2.2							K.11.2 Real holding gains							III.3.2.2
							AN. Non-financial assets							
REAL HOLDING GAINS ACCOUNT							AN.1 produced assets							REAL HOLDING GAINS ACCOUNT
							AN.2 non-produced assets							
							AF. Financial assets							
							AF. Liabilities							
							B.10.32 CHANGES IN NET WORTH DUE TO REAL HOLDING GAINS/LOSSES							